

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027118**Date Inspected:** 30-Jan-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

13E/PP122.5/E3 Lifting Lug Hole W4 (Exterior)

This QA Inspector randomly observed ABF welder Salvador Sandoval pre-heat the complete joint penetration (CJP) weld prior to performing Shielded Metal Arc Welding (SMAW) on lifting lug hole W4 at 13E/PP122.5/E3. This QA Inspector observed QC Inspector Fred Von Hoff verify that the temperature was at a minimum of 66° C and the amperage for the 3.4mm E7018-H4R electrodes was 125. The welder made a few more passes to complete the work and employed a small disc grinder to blend the reinforcement to a near flush condition. Upon completion of W4 the welder made preparations to perform fit-up operations on W3 of 13E/PP121.5/E3. This QA Inspector observed QC Inspector Fred Von Hoff utilize a Bridge Cam Gage to measure the fit-up of the 20 mm plate in the B-U4a joint on lifting lug hole W3. This QA Inspector verified the fit-up as acceptable and employed a 66°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Salvador Sandoval performing the SMAW process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with ABF-WPS-D15-1050A-CU. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general compliance with the approved WPS and the contract specifications. This joint is a Seismic Performance Critical Member (SPCM).

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13E/14E/A4 (Interior)

This QA Inspector randomly observed ABF welding operator Wai Kit Lai (ID 2953) performing the Flux Core Arc Welding with gas (FCAW-G) process utilizing a “Bug-O” motorized rail system with a magnetic base attached in the (4G) overhead position on the underside of deck plate “A4”, at 13E/14E of the OBG. This QA Inspector observed QC Inspector Fred Von Hoff monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=235/V=23.9/TS=190/HI=1.77). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance to the contract requirements. This joint is a Seismic Performance Critical Member (SPCM).

12E/13E/A4 (Interior)

This QA Inspector at random intervals, observed ABF welder James Zhen (ID 6001) perform the FCAW-G process in the 4G overhead position while employing a Bug-O motorized rail system on “A4” at 12E/13E on the interior of the OBG. This QA Inspector observed QC Inspector Fred Von Hoff calculate and monitor the parameters recorded as; (A=145/V=23.6/TS=190/HI=1.82). This QA Inspector made subsequent observations throughout the shift noted that the work was in progress and appeared to be in general conformance with ABF-WPS-D1.5-3110-4.

12E/PP115/E4 Lifting Lug Holes W2/W3/W4 (Exterior)

This QA Inspector randomly observed QC Inspector Mr. Jesse Cayabyab perform an ultrasonic inspection of lifting lug hole W2, W3 and W4 at 12E/PP115/E4. This QA Inspector observed that Mr. Cayabyab detected nine (9) rejectable ultrasonic indications at the locations listed below. The “A” deck plate section is 20 mm thick.

W2- y+195; 20mm’s in length 13mm’s deep. y+420; 70mm’s in length 15mm’s deep.

W3- y+95; 20mm’s in length 16mm’s deep. y+156; 40mm’s in length 16mm’s deep. y+295; 50mm’s in length 15mm’s deep. y+530; 20mm’s in length 10mm’s deep.

W4- y+0; 20mm’s in length 17mm’s deep. y+400; 20mm’s deep 16mm’s deep. y+455; 25mm’s in length 16mm’s deep.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
